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ABSTRACT

This paper reviews selected research efforts conducted during the period 1968-78 related to high school economics. More than 17 studies, which were selected on the basis of appropriateness, replicability, representativeness, and relevance, are summarized. The studies are grouped into categories of instruction, attitudes, and student achievement correlates. In the area of instruction, research studies explored the effectiveness of techniques such as gaming and structured debate, and the relationship between students' economic understanding and use of economic concepts in history courses. In the area of attitudes, research studies explored the relationships between economic understanding and students' attitudes toward economic issues, and between teacher attitudes toward economic issues and change in student attitudes. In the area of student achievement correlates, several studies examined the effects of students' sex and socioeconomic status on their economic understanding. The author concludes that additional research is needed in several areas. For example, future research should explore the lack of consistent findings concerning correlations between student attitudes toward economic issues and student achievement. (AV)

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Current Research Related to the High School Economics Curriculum

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INTRODUCTION

During the past decade (1968-1978) a number of widely disseminated reports related to the economics education movement have proposed an abundance of recommendations for investigation in the field. Many of the studies reported on in subsequent sections of this paper were generated as a result of suggestions advanced by professional groups or individuals interested in promoting economics education research.

In 1961, the National Task Force on Economics Education report entitled "Economics Education in the Schools," identified the need for a variety of research efforts addressing economics programs in the school setting.[1] Additionally, the U.S. Office of Education Social Studies Curriculum Center as well as the Joint Council for Economic Education "DEEP" project papers called for research investigation.[2] The American Economics Association Educational project involvement during the 1960's mandated research-based evaluation components which generated a variety of recommendations for supplementary inquiry as well. The American Economics Association annals of the period contained many articles suggesting research recommendations.[3] A study made by the National Association of Secondary School Principals in 1964, investigating the extent to which high school economics was taught in the United States, raised issues worthy of additional inquiry.[4]

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[1]John D. Mulhern, "The Status of Economic Education," American School Board Journal CLII (May 1966): p. 55.

[2]Ibid.

[3]G. L. Bach and Phillip Saunders, "Economic Education: Aspirations and Achievements," The American Economic Review LV (June 1965): pp. 329-356 passim.

[4]Galen Jones, "The Current Status of Economics Teaching in the High Schools of the United States," Bulletin of the National Association of Secondary School Principals XXXXIX (1965): pp. 3-27 passim.

Three individual researchers had publications of import in 1971 in which they posed research questions. Cicarelli, an economist, called for research relating to economic understandings of high school teachers.[5] Other salient research efforts were undertaken by Saunders, another economist, in that same year. His efforts related to the degree to which high school students, in general, had opportunities to apply their factual knowledge as well as their analytical tools to "real-world" problems.[6] Furthermore, Crews, a business educator at the University of Florida, identified topics for inquiry found specifically in the secondary school business setting.[7]

In 1976, the Educational Research Council of America conducted a fourteen step review of the research findings in eonomics education. The review produced twenty generalizations addressing the effectiveness of high school economics instruction. These generalizations have served for many researchers as a tabulation of significant topics for further scrutiny.[8] Finally, the 1977 National Council for Social Studies bulletin, Review of Research in Social Education, 1970-1975, suggested research pursuits pertaining to high school economics.[9]

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[5]James Cicarelli, "Economic Education in the High Schools," The American Economist XV (Spring 1971): pp. 89-93 passim.

[6]Phillip Saunders, "Does High School Economics Have a Lasting Impact?" Journal of Economic Education II (Fall 1970): p. 20.

[7]James W. Crews, "The Teaching of General Business and Economic Education National Business Educational Yearbook IX (1971) pp. 87-96 passim.

[8]Henry M. Brichell and Mary Carroll W. Scott. Effectiveness of Economic Education in Senior High Schools (Bethesda, Md.: ERIC Document Reproduction Service, ED 143 571, 1976) pp. 1-37 passim.

[9]Francis P. Hunkins et al, Review of Research in Social Studies Education: 1970-1975. Washington, D.C.: National Council for the Social Studies (1977) pp. 3-12 passim.

The major objective of this paper is to report on selected research efforts conducted during the period of 1968-1978 relating to high school economics. The following methods will be utilized to attain that objective: (1) an array of research efforts significant for the secondary educator as well as for the university educator to be familiar with will be identified, (2) a synthesis of findings related to those research efforts will be revealed, and (3) conclusions regarding those efforts will be established.

RESEARCH EFFORTS SIGNIFICANT FOR THE SECONDARY EDUCATOR AND THE UNIVERSITY EDUCATOR

The criteria which have been used to select the research study findings to be included in this paper are identified below (See Table 1). These criteria were established as a result of: (1) a synthesizing of suggested recommendations for research reported on in the reports mentioned above, and (2) discussions including this author and other members of the 1978 Purdue Economics Institute for College and University Social Science Educators. The selection criteria are as follow:

Table 1

Selection Guidelines

The selection of study findings to be included depends on the degree to which the study research design itself evidenced the following attributes:

Attribute (Selection Criteria)	Key Question
(1) Appropriateness	Does it include a description of suitable plans, structures, strategies, sampling techniques, and statistical procedures?
(2) Replicability	Can it be duplicated without the likelihood of numerous problems arising?
(3) Representativeness	Does it illustrate a minimum of one topic or one research design suggested in the reports mentioned in the introduction section of this paper?
(4) Relevance	Are its findings pertinent or germane to decisions affecting secondary school economics?

With the above guidelines in mind, seventeen studies were selected to be included in this paper in addition to those reports mentioned in the introduction. Nineteen additional studies were rejected from incorporation, however, as a result of disqualification based on one or more of the above criteria. Disqualified studies will be reported on in a companion paper to be concluded in mid-year, 1979. (See bibliography.) The included studies are grouped into the categories of instruction, attitudes, and student achievement correlates.

Studies Related to High School Economics Instruction

Typically, high school economics classes are housed in social studies or business departments. Generally, they are presented as discrete courses.

Occasionally, however, a school program will incorporate economics objectives into already established courses such as history or general business rather than offer separate classes in the discipline. In some instances, as seen here, a school curriculum will provide both options.

In cases where there are separate economics courses, the content is usually addressed through the descriptive-institutional approach or through the historical approach.[10] The studies mentioned here represent the utilization of the concept-analytic approach, however, not frequently implemented in the classroom but preferred by most learning theoreticians. Kourilsky's research efforts in the Los Angeles area have utilized the concept-analytic learning mode.[11] Her Adversary Instructional Model (AIM), used in high school economics classes, incorporated a series of structured debates as well as other prescribed experiences. Throughout the debate format, students were expected to apply economic concepts and analysis skills to public policy issues under scrutiny. Test scores indicated that students in the experimental group, where the debate structure was used, performed significantly better on post-experiment critical thinking skill tasks than those in the control group. Control group classes did not hold debates or participate in regularly scheduled concept application or analysis activities.

Another non-traditional instructional technique investigated recently is that of gaming or simulation. Reigel noted in his comparison of two instructional approaches (1969) used in economics classes that, contrary to his

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[10] Bach and Saunders, LV: 341.

[11] Marilyn Kourilsky, "Learning Through Advocacy: An Experimental Evaluation of an Adversary Instructional Model," Journal of Economic Education (Spring 1972) pp. 86-93 passim.

expectations, the use of classroom simulation did not prove to be superior to that of the lecture-discussion model.[12] Golabek's findings (1973) confirmed what Reigel established about the use of the gaming technique. Golabek compared simulation utilization to conventional methodology used in distributive education classes.[13] His account also indicated that there were no significant achievement differences between the experimental and control groups on combined post-test scores.

Teachers involved in the experimental group of the 1972 Nelson study in Contra Costa, California, used an instructional technique entitled "systems design procedures," developed at San Jose State. This instructional approach centered around concept attainment in the study of economics. The Nelson findings purported that students in the experimental program, called ECON 12, were unable to use concepts and analyze data as effectively as those in the control group. Teachers assigned to the control group classes had used the conventional instructional technique usually found in high school economics classes.[14]

Two research efforts related to the incorporation of economics concepts into other social studies class curriculum objectives are included in this last section. Blanchard evaluated the effectiveness of teaching economic

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[12]Terry K. Reigel, "A Comparative Study of Two Approaches to the Teaching of Economics in Suburban New Jersey Twelfth Grade Economics Classroom" Dissertation Abstracts, 31/06-A (Ed.D. Doctoral dissertation, New York University, 1969) passim.

[13]Dennis B. Golabek, "An Investigation to Determine the Relative Effectiveness of the Consumer Game in Distributive Education Classes at the Secondary Level" Dissertation Abstracts, 34/10-A (Ed.D. Doctoral dissertation, Rutgers University, 1973) passim.

[14]James Byron Nelson, "An Evaluation of the Econ 12 Economic Education Project" (Ed.D. Doctoral dissertation, University of California, Berkeley, 1971) p. 236.

understanding through the integration of major economics concepts by curriculum specialists into the already established program objectives of a group of U.S. History courses. The findings revealed that the integration of economic concepts did not result in significant gains in student achievement in economic understanding when measured by the "Test of Economic Understanding." Results of the study did show, however, that in those history classes where economics concepts were incorporated, significant gains were made in history achievement.[15] A set of different conclusions was yielded by those who investigated the Illinois "World of Work" model. A study made under the direction of MacDowell, Senn, and Soper at Northern Illinois University examined the effect of teacher integration of economics concepts into social studies class curricula. Social studies instructors injected work-related economics principles and concepts into their own unit plans at their individual discretion. Test results indicated that students exposed to the curriculum with the work-related economics concept emphasis learned significantly more about economics than those history students who were not exposed to that curriculum.[16]

Studies on Attitudes Toward High School Economics

Several useful research studies dealing with the affective domain in economic education have been conducted during the past decade. Hemmer (1969), for example, compared student attitudinal and cognitive changes.

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[15]Walter Joseph Blanchard, "An Evaluation of the Effectiveness of Teaching Economic Understanding Through United States History Courses" Dissertation Abstracts, 34/10-A (Ed.D. Doctoral dissertation. The University of Connecticut, 1973) 6348-A passim.

[16]Michael A. MacDowell, Peter R. Senn, and John C. Soper, Work in the Social Studies: A Preliminary Review (Northern Illinois University, 1977), 1-19 passim.

Hemmer constructed an "Economic Attitude Scale" for use in his study basing items on concepts recommended for curriculum inclusion by the National Task Force on Economic Education Report (1961). He administered the scale as well as the "Test of Economic Understanding" to twelfth grade students and their teachers. His "Economic Attitude Scale" measured the extent to which respondent attitudes toward economic problems were similar to the same attitudes of a panel of twenty-seven economists participating in the study. Hemmer found that as student understanding of the discipline of economics increased, their attitudes toward certain economic issues improved. With regard to the teacher dimension of the study, it was discovered that the greater the teachers' agreement with the attitudes of the economists, on the panel, the greater the gains his/her students tended to make on both the affective and the cognitive instruments.[17] A study conducted by Wood at Oklahoma State University was similar in some respects to that of Hemmer. Wood discovered that the attitudes of one's teacher toward economics had a significant relationship with the amount of change in student "dogmatism" and "opinionation" as measured by the Rokeach scales.[18]

Two notable studies of student attitudes, made by English and by Langrehr and Mason, focused on the specialty of consumer economics. The examination by English of student attitudes toward consumer education produced a variety of findings. Most students when surveyed about course relevance, for example,

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[17]William B. Hemmer, "The Development of an Affective Scale and Its Use in Comparing Affective and Cognitive Changes During Twelfth-Grade Economics Instruction Dissertation Abstracts, 30/08-A (Ed.D. Doctoral dissertation, State University of New York at Albany, 1969) 3189-A.

[18]Steve W. Wood, "Effect of Content and Teachers on Student Economic Knowledge and Attitude," Delta Pi Epsilon Journal. XVI, 2 (February 1974) 1-11.

responded that the majority of course topics included in the state adopted curriculum (Illinois) were perceived to be "highly valuable." Additionally, when students were questioned about the "most valuable" type of teaching method used in courses, more than seventy percent stated that "class discussion" was best. Student response was emphatic concerning perceived need for instructional variety in the school setting to prevent classroom boredom.[19] The Langrehr and Mason study posed two questions: (1) Do secondary school consumer education programs effect student attitudes toward the marketplace?, and (2) If student attitudes are effected, are students likely to be more or less satisfied with the performance of the free enterprise system after receiving such instruction? Students enrolled in either a consumer education course (experimental group) or a traditional economics course (control group) were administered the "Lundstrom Consumer Discontent Scale" as a pre and posttest measure.[20] In response to the first question raised, it was found that student attitudes were effected considerably by enrollment in consumer education classes. Further, scores revealed that students enrolled in the consumer education courses had a significantly greater positive change in attitude toward the marketplace than did those in the control group. Attitudinal change was measured by posttest score gains.[21]

The McWilliams and Pinney examination, similar in some respects to that of Langrehr and Mason, did not yield similar findings. The study was undertaken

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[19]Donald E. English, "Relationship of Teacher and Student Attitudes to Consumer Education," The Delta Pi Epsilon Journal, XVI, 2 (February 1974) 25-32.

[20]William Lundstrom and Lawrence Lamont, "The Development of a Scale to Measure Consumer Discontent, Journal of Marketing Research, 8 (November 1976), 373-381.

[21]Frederick W. Langrehr and J. Barry Mason, "The Influence of Formal Instruction in Consumer Education Academic Units on Attitudes Toward the Market Place: A Case Study of Illinois Students," Journal of Economic Education, IX, (Spring 1978), 133-134.

to determine what relationship existed between student understanding of and student attitudes toward the free enterprise system. Findings suggested that degree of student economic knowledge was a relatively weak predictor of student attitude toward the American economic system. Additionally, contrary to other study findings, the researchers concluded that the amount of attitudinal change toward the free enterprise system brought about by economic education experience was not significant.[22]

Studies Related to Selected Student Achievement Correlates

Between 1968 and 1978 many investigations were made which attempted to determine if differences in economic understanding existed among students whose socio-biographical attributes varied. Six studies are reported on here: three focused on sex differences; three addressed socio-economic status.

Hunt (1968) concluded that differences in sex were not related to the learning of high school economics. Twelfth grade students enrolled in social studies classes in which economic concepts were addressed acted as members of the experimental group in this study. The control group included comparable twelfth grade students in the same schools who were not studying economics. The "Test of Economic Understanding" was administered to both groups at the beginning and at the end of the experimental group's class grading period. Test scores yielded no significant differences between male and female respondents in either group.[23] Hopkins reported similar findings regarding

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[22]D. B. McWilliams and W. E. Pinney, "Economic Education and Attitudes Toward the Free Enterprise System," Journal of Economic Education, IX, (Spring 1978), 126-128.

[23]Eugene Harold Hunt, "An Experimental Study to Determine the Effectiveness of Teaching Economics at the Secondary School Level," Dissertation Abstracts, 29/05-A (Ed.D. Doctoral dissertation University of Maryland, 1968) 1474-A.

student achievement and sex. Hopkins measured and compared economic understanding and general business knowledge of students enrolled in general business courses. Economic understanding and scholastic achievement were positively correlated but no significant correlations were disclosed related to sex differences.[24] Gentry examined non-college bound high school seniors and found one significant sex-linked difference among those investigated.[25] He found that males, in "small school," "work experience" programs had a better understanding of economics concepts than females in similar schools and programs. This finding did not hold true, however, in larger schools or in other types of economic programs.

Socio-economic background was a focal point of the three studies by Rutledge, Wall, and Boddy. Rutledge investigated levels of understanding and socio-economic status of twelfth grade students. Student socio-economic status was determined by scores achieved on the "Minnesota Scale for Paternal Occupations." Scores on the "Test of Economic Understanding" were used to determine student achievement of economic concepts. Students of higher levels of socio-economic status tended to score higher in economic understanding.[26] Wall corroborated Rutledge's conclusions concerning

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[24]Charles Russel Hopkins, "A Measure of Economic Understanding and General Business Knowledge of Tenth Grade Students," Dissertation Abstracts, 30/01-A (Ph.D. Doctoral dissertation, University of Minnesota, 1968) 60-61 A.

[25]Athal Dennis Gentry, "Economic Understanding of Non-college bound Seniors in Public High Schools in Indiana" Dissertation Abstracts, 31/02-A (Ed.D. Doctoral dissertation, University of Denver, 1969) 61-62 A.

[26]Walter Edward Rutledge, "An Analysis of Economic Understanding of Selected High School Seniors in the Atlanta Public School" Dissertation Abstracts, 32/07-A (Ph.D. Doctoral dissertation, Georgia State University, 1971) 3573-A.

achievement and status.[27] Twelfth graders from homes of higher socio-economic status had higher test scores. Boddy's findings, contradicted the conclusions of the Rutledge and Wall studies, however. His analysis did not reveal a significant relationship between economic understanding and socio-economic status among high school 10th and 12th graders.[28]

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[27]Charlton D. Wall, "Contributing Factors to the Economic Understanding of High School Seniors," Journal of Business Education (April 1973): 305-306.

[28]Edward Boddy, "Levels of Economic Understanding and Their Relationships to Selected Factors in Southwestern Florida High School Students," Dissertation Abstracts, 34/06-A, p. 2905 (Ed.D. Doctoral dissertation, University of Florida, 1972) 2905-2906 A.

A SYNTHESIS OF STUDY FINDINGS AND CONCLUSIONS

A synthesis of the findings of this research endeavor is revealed in the following tables. Table 2 displays findings related to instructional techniques investigated.

Table 2

A Summary of Findings Related to Instruction
(Control Group Treatment: Traditional Methods and Content)

	Experimental Focus	Achievement Type Measured	Significant Gains Found
1.	Structured debate format (requiring prescribed application activities)	Critical thinking skills	Yes
2.	Simulation or gaming	Economic understanding	No
3.	"Systems designs"	Concept utilization; Data analysis	No
4.	Integration of economic concepts in history courses by "specialists"	Economic understanding	No
5.	Integration of work-related economic concepts into history courses by teachers	Economic understanding	Yes

Table 3 displays findings concerning student and teacher attitudes toward high school economics.

Table 3

A Summary of Findings Related to Student and Teacher Attitudes Toward High School Economics

	Experimental Focus	Other Correlates	Significant Relationship Found
1.	Student attitudes toward economic issues	Economic understanding	No clear pattern established
2.	Teacher attitudes toward economic issues	Change in student "dogmatism" and "opinionation"	Yes
3.	Student attitude toward Illinois consumer education curriculum	None	Frequencies indicated student perception was positive

The findings displayed in Table 4, on the next page, represent a summary of student achievement correlates. The "Test of Economic Understanding" was the instrument used in each research endeavor summarized.

Table 4

A Summary of Findings Related to
Student Achievement Correlates

Experimental Focus	Achievement Measured	Significant Relationships Found
1. Sex of student	Economic understanding	No (in general)
2. Socio-economic status of student (seniors only)	Economic understanding	Yes
3. Socio-economic status of student (sophomores and seniors together)	Economic understanding	No

CONCLUSIONS

From this study, several conclusions have been drawn. First, it was found that during the period 1968-1978 much research was undertaken concerning the high school economics curriculum. Several dozen dissertations as well as an equal number of other research efforts were completed during that period (See bibliography for complete list). Second, approximately one half of the efforts identified in the bibliography of this paper were based on research recommendations posed in the reports mentioned in the introduction section of this paper. (Many of the research efforts conducted by investigators during the examination period are not included in this paper. The study designs of those not included did not meet the selection criteria identified in the introduction section of this paper.) Last, additional research is needed related to the high school economics curriculum. The author poses the following questions which have not been answered to date related to economics research.

1. Would status reports (similar to this study) yield the same general findings if replicated in other high school social studies research arenas (government, sociology, etc.)?
2. Would an indepth examination of economics studies not included in this report suggest patterns related to the criteria on which they were rejected?
3. What research categories not addressed in studies included in this report need to be explored?
4. What factors account for the lack of significant student achievement gains when certain non-traditional techniques are used in economics classes?
5. What factors account for the lack of pattern with respect to correlations between student attitudes toward economic issues and student achievement?
6. Do student socio-biographical variables and attitudes not addressed in this study have significant statistical relationships with student achievement?

This study came about as a result of a demand made by a group of concerned university educators in 1978. Several members of the Economics Education Institute for College and University Social Studies Educators at Purdue University voiced a need for a status report on current research related to high school economics.

Although some studies may have been overlooked, this investigator has made a genuine effort to identify those efforts made during the 1968-1978 time frame related to high school economics. This investigator has attempted to maintain consistency when applying the selection criteria to the task of choosing studies for report incorporation. The reader is asked to bear in

mind, however, that the posture of the investigator always has some influence on the selection and organization of a research effort. Alternative selection and organization, therefore, may not only be plausible but useful. It is for this reason that selection criteria have been made explicit and that the extensive list of studies undertaken during the last ten year period is provided below for the reader's convenience.

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